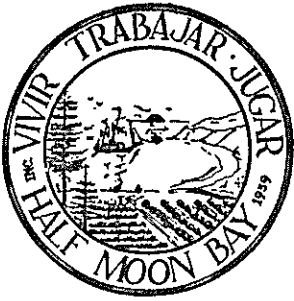


PROPOSALS
FOR CONSOLIDATION OF
I - LABORATORY/MONITORING
II - OPERATION/MAINTENANCE
SEWAGE TREATMENT AGENCIES
HALF MOON BAY BASIN

Prepared by
Albert L. Ditman
Chief Plant Operator
CITY OF HALF MOON BAY
December 1974

Corrected/Modified
January 1975



CITY OF HALF MOON BAY

CITY HALL • 501 MAIN STREET
HALF MOON BAY, CALIFORNIA 94019

Telephone (415) 726-5566

From The Office of
City Manager

January 17, 1975

Granada Sanitary District
Montara Sanitary District
c/o Coastside Sewer Service Agency
P.O. Box 131
Montara, California 94037

Gentlemen:

Contained herein is a corrected and slightly modified copy of the City's study on limited consolidation of certain sewage functions here on the coastside. This replaces the original draft, delivered to you several weeks ago by Al Ditman, and sets forth alternative levels of consolidation while still retaining three separate agencies and three separate treatment plants.

In reviewing this report, please keep in mind that no attempt has been made to analyze all of the costs of any of the three agencies. Rather, only those costs directly relating to total manpower, and all laboratory related expenses, have been studied for purposes of comparing cost savings through different levels of consolidation. In Alternatives #A and #B, for example, there are obviously Districts costs for their own collection and transporting of samples to the central lab, but no attempt has been made to evaluate them here. If this could be done, it would show an even greater savings in Alternative #C over #A and #B.

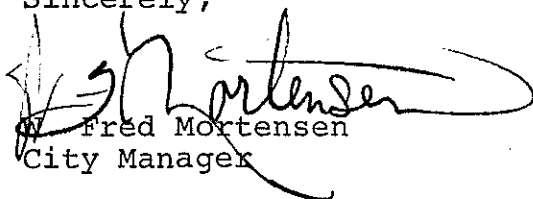
Your attention is called to the cost summary sheet at the end of the report. Here all alternatives studied are set forth side by side for comparative purposes. At the bottom we see that an estimated savings of over 5% could be realized by adopting Alternate #B, whereas a savings of almost 10% could be realized by consolidation of all monitoring under Alternate #C. The City feels that Alternate #C should be our collective minimum consolidation.

The full consolidation of both laboratory/monitoring and operation/maintenance could save the taxpayers of the coastside a minimum of 27% over new existing costs, as shown in this report. Other estimates, provided by our joint consultants, would indicate an even greater expected savings. The City would recommend this more comprehensive step with its substantially greater savings, and would be prepared to extend its services to accomplish this at any time.

A great deal of time and effort have been put into this study, and the City respectfully asks that an equally serious evaluation of this work now be undertaken by the Districts. Salaries and classification data used herein have not been verified, and in other areas estimates had to be used where actual figures were not available to the City. Nevertheless we feel that the report accurately reflects the relative savings that could be enjoyed by all through such a joint effort.

If either of the Districts have information that would lead to different conclusions than those reached in this study, the City would greatly appreciate the opportunity of reviewing it with the Districts. If not, then we would hope that a response to the proposals contained herein could be received at the earliest possible date.

Sincerely,


Fred Mortensen
City Manager

WFM/mc

Estimation of Laboratory Costs - Alternate #A

Manhours required:	HMB	Granada
Monitoring in lab	628	517
Monitoring in plant	260	-0-
Process control	260	-0-
Total Hours	1148	517
Percentage Share	68.95	31.05

Cost Breakdown:

Materials	\$1,500.
Utilities	1,800.
Ammortization	3,100.
Boat	900.
Administration	2,000.
Salaries & Benefits	14,596.
Total Cost	\$23,896.

Estimated Share of Cost:

Granada @ 31.05% = \$7,420.

ALTERNATE #B

The second alternate would be to perform the same tests for Montara Sanitary District as those for Granada Sanitary District in Alternate #A. Both districts would then be included in the Central Laboratory work. Better utilization of laboratory facilities and personnel would result in lower costs per test performed. As in Alternate #A the plant operators would have to perform some of the required tests on daily grab samples of the effluent.

Under this alternative, either separate laboratory service agreements or one combined agreement would be entered into by the City and the two Sanitary Districts, incorporating the following:

The Districts agree to pay the sums indicated annually to the City for the use of personnel and facilities furnished by the City to render the following laboratory services:

Granada	Montara	
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104	104	Biochemical Oxygen Demand tests
104	104	Total Suspended Matter tests
104	104	Oil and Grease tests
228	216	Fecal or Total coliform tests
12	12	Fish Bioassay (TLM) tests
4	4	Nitrogen and phosphorus series tests
84	72	Turbidity tests
72	60	Ocean Samples (Collection and required analysis)
84	72	Apparent Color tests
12	12	Floating particulates tests
1	1	Metals (As Co Cu Cr Ag Pb Hg Ni Zn)
1	1	Cyanide test
1	1	Phenols test

\$5,900.	\$5,700.	Annual cost
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Estimation of Laboratory Costs - Alternate #B

Manhours Required:	HMB	Granada	Montara
Monitoring in lab	526	444	428
Monitoring in plant	260	-0-	-0-
Process control	260	-0-	-0-
Total Hours	1046	444	428
Percentage Share	54.54	23.15	22.31

Cost Breakdown:

Materials	\$2,000.
Utilities	1,800.
Ammortization	3,100.
Boat	900.
Administration	2,938.
Salaries & benefits	14,596.

Total Cost \$25,334.

Estimated Share of Cost:

Granada @ 23.15% = \$5,865.

Montara @ 22.31% = \$5,652.

ALTERNATE #C

The third alternative would be for the one central laboratory to perform all required testing and standard observations as per the new monitoring requirements for all three agencies. In this case, the City would employ the manpower necessary to provide this total monitoring service to the Districts.

Laboratory services agreements would either be amended or created to incorporate the following paragraph:

The Districts agree to pay sums indicated annually to the City for the use of personnel and facilities furnished by the City to render the following laboratory services:

Granada	Montara
---------	---------

\$13,000.	\$12,800.	Perform all tests required according to 1975 N.P.D.E.S. Monitoring Programs for Granada and Montara Sanitary Districts, copies of which are appended hereto and made a part of this agreement.
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In this alternative, one of Montara's operators would be transferred to the City forces to become a technician, and one part time position in Granada could be eliminated. The increased charge to Montara would be more than offset by a corresponding reduction in its payroll. This would perhaps be true to a lesser extent with Granada, however their remaining personnel would have more time than at present for proper operation and maintenance of their system. The overall benefits would be reduced costs and better operation and maintenance of the separate systems.

Estimation of Laboratory Costs - Alternate #C

Manhours Required:	HMB	Granada	Montara
Monitoring in lab	526	444	428
Monitoring in plant	260	260	260
Process Control	260	260	260
Travel time		182	182
Total Hours	1046	1146	1130
Percentage Share	31.49	34.50	34.02

Cost Breakdown:

Materials	\$2,000.
Utilities	1,800.
Ammortization	3,100.
Boat and Vehicle	1,426.
Administration	2,938.
Salaries	26,308.

Total Cost \$37,572.

Estimated Share of Costs:

Granada @ 34.50% = \$12,962.

Montara @ 34.02% = \$12,782.

In all three of the above alternatives the City Staff will assemble the necessary data pertaining to the laboratory analysis and submit the information to each district involved for submission with their monthly monitoring reports. The submitted information will be in the form as required by the Regional Water Quality Control Board.

II. PROPOSAL FOR CONSOLIDATION OF OPERATING,
MAINTENANCE AND LABORATORY TESTING

The following is a brief description of the effectiveness of placing operation, maintenance, and laboratory testing for all three agencies under control of one single agency.

For a totally consolidated three plant operation the following personnel would be required as a minimum staff. The number of persons proposed would only be possible because of the specialization of personnel.

PERSONNEL REQUIREMENTS

1	Superintendent
1	Chemist Biologist
1	Technician
2	Plant Operators
2	Maintenance Men

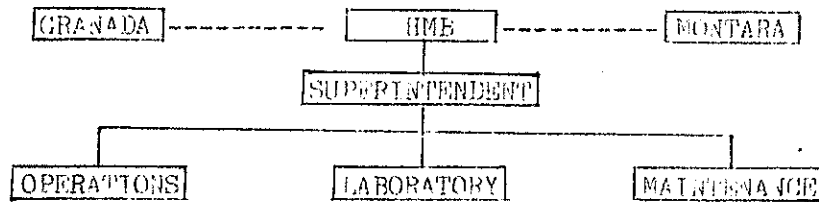
In the above arrangement the two operators would be scheduled so their shifts would overlap on three days and they would travel to each plant giving each plant a minimum of two hours per day intensive operation. On the overlapping days the extra man would work with the maintenance crew.

Weekend sewer line maintenance and emergency plant repairs would be handled by the maintenance men on an "on call" basis. Lift station maintenance would be handled Monday through Friday by the maintenance crew and would only be briefly checked on weekends by the operator on duty.

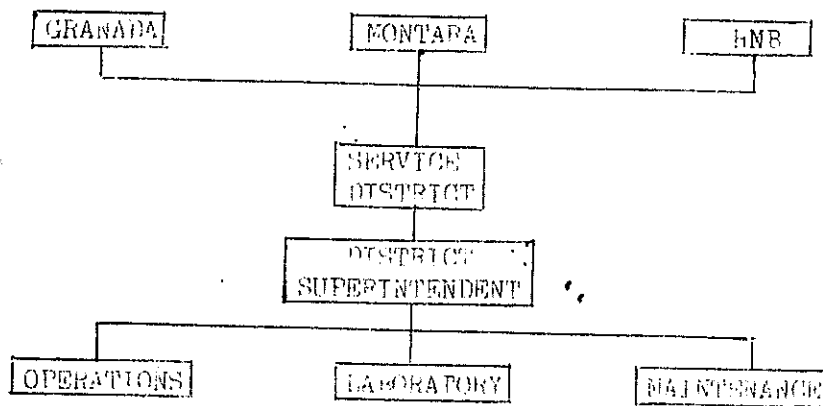
The chemist and technician would also schedule their shifts so that one of them would always be available to travel to each plant to perform the necessary testing at each plant location. Appropriate samples would be transported back to the Central Lab for analysis.

The single agency concept would be accomplished by one agency contracting to provide the necessary services to the other two agencies, thus preserving political control in each district as the contracting agency would be limited by each agreement to operation, maintenance, and monitoring only.

ALTERNATIVE # 1
ORGANIZATIONAL STRUCTURE



ALTERNATIVE # 2
ORGANIZATIONAL STRUCTURE



COSTS SUMMARY

ALTERNATE #A Updated Existing	ALTERNATE #B Updated Existing w/M.S.D.	ALTERNATE #C Total Monitoring Consolidation	TOTAL LABORATORY AND "O&M" CONSOLIDATION
HMB: Personnel \$58,736. 1 CPO 1 Chemist 2 Operators Lab Costs w/o Sal. 9,300. Contracts (7,400)	HMB: Personnel \$58,736. 1 CPO 1 Chemist 2 Operators Lab Costs w/o Sal. 10,738. Contracts (11,600)	HMB: Personnel \$70,448. 1 CPO 1 Chemist 1 Technician* 2 Operators Lab Costs w/o Sal. 11,264. Contracts (25,800)	SINGLE AGENCY Personnel 1 Superintendent 1 Chemist 1 Technician 2 Operators 2 Maintenance Men
GRANADA: Personnel \$35,000. 1 CPO 1 Operator 1 Part-time Lab Contract 7,400.	GRANADA: Personnel \$35,000. 1 CPO 1 Operator 1 Part-time Lab Contract 5,900.	GRANADA: Personnel \$26,000. 1 CPO 1 Operator Lab Contract 13,000.	COMBINED COSTS Supervision \$21,960. Monitoring 37,572. Operation 24,976. Maintenance 23,717. Gen. Adm. 4,500.
MONTARA: Personnel \$42,300. 1 Superintendent 2 Operators 1 Part-time Office Estimated Lab 9,740. Total: \$155,076.	MONTARA: Personnel \$42,300. 1 Superintendent 2 Operators 1 Part-time Office Lab Contract 5,700. Total: \$146,774.	MONTARA: Personnel \$32,000. 1 Superintendent 1 Operator* 1 Part-time office Lab Contract 12,800. Total: \$139,712.	Total \$112,725.
*Proposed to be added as a result of NPDES requirements.	*Increase in staff at H.M.B. with corresponding reduction at Montara (Reduction also at Granada).		
Total full time personnel 9 2 part-time @ .5 1 Total personnel 10	Total full time personnel 9 2 part-time @ .5 1 Total personnel 10	Total full time personnel 9 1 part-time @ .5 .5 Total Personnel 9.5	Total full time personnel 7 0 part-time @ .5 0 Total personnel 7
MOST COSTLY	5.35% UNDER MOST COSTLY	9.91% UNDER MOST COSTLY	27.31% UNDER MOST COSTLY